

REMARKS

In the Advisory Action mailed September 2, 2003, by Examiner Chakrabarti, in Art Unit 1634, Claims 1-4, 6, 9, 11-47 are pending and all stand rejected. The Amendment and Response submitted on August 7, 2003, was not entered because the amendments to the claims allegedly raise new issues that would require further consideration and search. Applicant respectfully traverses this conclusion and requests that the Amendment and Response be entered. Applicant incorporates the Amendment and Response filed on August 7, 2003, herein in its entirety, and respectfully requests reconsideration and entry of the amendment.

I. The August 7 Amendment Does not Raise New Issues that Would Require Further Consideration and Search.

The Advisory Action suggests that the phrase "of the non-terminator nucleotide mixture which is not omitted" raises new issues for consideration. Applicant respectfully disagrees. Claim 1, for example, provides:

A method for detecting or quantifying a target nucleic acid in a sample comprising:

(a) preparing at least one primer specifically matched to a predetermined position of the target nucleic acid;

(b) annealing the at least one primer from (a) with the target nucleic acid to obtain a primer-nucleic acid duplex at the predetermined position of the target nucleic acid;

(c) mixing the primer-nucleic acid duplex from (b) with a non-terminator nucleotide mixture, wherein at least one of four required types of nucleotides for continuous extension during primer extension reactions A, T, G, or C non-terminator nucleotides is omitted from the non-terminator nucleotide mixture, and wherein at least one non-terminator nucleotide of the non-terminator nucleotide mixture which is not omitted is labeled with a detectable marker;

(d) performing isometric primer extension by enzymatic or chemical reaction in an appropriate buffer to form isometric primer extension products, wherein the primer extension terminates at a target nucleic acid nucleotide complementary to the omitted non-terminator nucleotide of (c); and

(e) detecting or quantifying the amount of labeling signal on the isometric primer extension products.

Element (c) requires mixing the primer-nucleic acid duplex from (b) with a non-terminator nucleotide mixture, wherein at least one of ~~four required types of nucleotides for continuous extension during primer extension reactions~~ A, T, G, or C non-terminator nucleotides is omitted from the non-terminator nucleotide mixture, and wherein at least one non-terminator nucleotide of the non-terminator nucleotide mixture which is not omitted is labeled with a detectable marker. The phrase "of the non-terminator nucleotide mixture which is not omitted" is a non-substantive amendment that clarifies that one of the non-terminator nucleotides already present in the mixture is labeled with a detectable marker. The double negative "not omitted" refers to a non-terminator nucleotide already present in the mixture. Indeed, only a non-terminator nucleotide that is already present in the mixture can be labeled with a detectable marker so that the primer extension product can be detected as recited in element (c). Such a nucleotide was required by the claim prior to the amendment, and therefore, the amendment cannot raise new issues for consideration. Indeed, Applicant made the amendment only in the effort to expedite prosecution of the present patent application.

For completeness, Applicant notes that the phrase "A, T, G, or C non-terminator nucleotides" defines the term "one of the four required types of nucleotides for continuous extension during primer extension reactions." Applicant submits that the specification supports this definition, for example on page 9 of the specification as originally filed. Furthermore, the specifically identified non-terminator nucleotides fall within the scope of the term "one of the four required types of nucleotides for continuous extension during primer extension reactions." Accordingly, this amendment cannot raise new issues for consideration or search.

Applicant submits the claims prior to the August 7, 2003, Amendment and Response are allowable over the prior art of record, and the claims as amended by the August 7, 2003, Amendment and Response are also allowable over the prior art of record.

CONCLUSION

In light of the foregoing Remarks, Applicant respectfully requests that the Amendment and Response filed on August 7, 2003, be entered. In view of the August 7, 2003, Amendment and Response, Applicant believes that the now-pending claims are in condition for allowance. Accordingly, favorable consideration and allowance of the present application is hereby respectfully requested.

The Commissioner is authorized to charge this any other fee associated with this paper or the August 7, 2003 Amendment and Response to deposit account 20-0778.

To expedite prosecution of the present application, the Examiner is invited to call the undersigned at 770-933-9500 if there are any other issues or concerns that require attention.

Respectfully submitted,

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